

10. (Currently amended). High-speed shears for transverse cutting of a rolled strip comprising:

a shear frame;

a first upper blade drum rotatably fixed in the shears frame and having a comparatively large diameter and carrying a first upper blade;

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a second lower blade drum rotatably fixed in the shears frame and having a comparatively small diameter and carrying a second lower blade;

means for permanently rotationally connecting the first and second blade drums, the first and second blades cooperating with each other in a predetermined cutting position of the first and second drums for cutting the rolled strip;

two pinch-roller sets located in front of and behind the first and second drums, respectively, for advancing the rolled strip, under longitudinal tensioning, through a gap between the first and second drums; and

roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second lower blade and for lowering the strip before passing of the first upper blade through a cutting position;

wherein the roller means cooperates with one of hydraulic, mechanical, driving and adjusting means an operation of which is synchronized with passing of a respective one of the second lower and first upper blades through the blade gap between the first upper and second lower drums.

11. (Previously presented). Shears as set forth in claim 10, wherein the rotationally connecting means comprises two synchronization tooth gears fixedly connected with respective blade drums and having different pitch circle diameters corresponding roughly to diameters of respective blades, the synchronization tooth gears engaging each other substantially backlash-free.

12. (Previously presented). Shears as set forth in claim 10, wherein a radial distance from a rotational axis of the first upper blade drum to a peripheral region of the first upper blade drum opposite a blade-carrying region of the first upper blade drum is smaller than a radial distance from the rotational axis to the periphery of the blade-carrying region.

13. (Cancelled).

14. (Previously presented). Shears as set forth in claim 11, wherein in order to at least minimize the backlash, the tooth gear associated with the second lower blade drum is divided in two gear portions, and the shear further

comprises bolt means for securing the two gear portions in a predetermined angular position with respect to each other.

15. (Previously presented). Shears as set forth in claim 10, wherein a number of x-revolutions of one of the blade drums corresponds to a number y-revolutions of another of blade drums so that the blade drums are brought into the cutting position after different but finite number of the x-revolutions and y-revolutions of the respective blade drums.

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16. (Currently amended). High-speed shears for transverse cutting a rolled strip to a length, comprising:

an upper beam bridge having a relatively large diameter and carrying a first blade and having a shaft stub on each of opposite longitudinal sides thereof,

a lower blade drum having a comparatively small diameter and carrying a second blade;

means for permanently rotationally connecting the beam bridge with the lower drum, the first and second blades cooperating with each other in a predetermined cutting position of the beam bridge and the lower drum for cutting the rolled strip;

two pinch-roller sets located in front of and behind the beam bridge and the drum, respectively, for advancing the rolled strip, under longitudinal tensioning, through a blade gap between the beam bridge and the lower drum; and

roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second lower blade and for lowering the strip before passing of the first upper blade through the blade gap;

wherein the roller means cooperates with one of hydraulic, mechanical, driving and adjusting means an operation of which is synchronised with passing of a respective one of the second lower and first upper blades through the blade gap between the upper beam bridge and the lower drum.

17. (Currently amended). High-speed shears for transverse cutting a rolled strip to a length, comprising:

a first upper blade drum having a comparatively large diameter and carrying a cutting bit;

a second lower blade drum having a comparatively small diameter and carrying an anvil;

means for permanently rotationally connecting the first and second drums, the cutting bit and the anvil cooperating with each other in a predetermined cutting position of the first and second drums for cutting the rolled strip;

two pinch-roller sets located in front of and behind the first and second drums, respectively, for advancing the rolled strip, under longitudinal tensioning, through a blade gap between the first and second drums; and

roller means for supporting the tensioned strip and providing for lifting of the strip before passing of the second blade and for lowering the strip before passing of the first blade;

wherein the roller means cooperates with one of hydraulic, mechanical, driving and adjusting means an operation of which is synchronized with passing of a respective one of the second lower and first upper blades through the blade gap between the first upper and second lower drums.
